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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/542,546	04/03/2000	Pierre Duhot	31640-159397	4816

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Venable
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Washington, DC 20043-9998

EXAMINER

MCELWAIN, ELIZABETH F

ART UNIT	PAPER NUMBER
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1638

DATE MAILED: 07/18/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/542,546

Applicant(s)

DUHOT ET AL.

Examiner

Elizabeth F. McElwain

Art Unit

1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,8,12,13,16-21,23 and 30-34 is/are pending in the application.

4a) Of the above claim(s) 8 and 16 is/are withdrawn from consideration.

- 5) ☐ Claim(s) _____ is/are allowed.

- 6) ☒ Claim(s) 1,2,12,13,17-21,23 and 30-34 is/are rejected.

- 7) ☐ Claim(s) _____ is/are objected to.

- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

The amendment filed May 5, 2003 has been entered.

Claims 3, 4, 6, 7, and 14 have been entered.

Claims 1, 8, 12, 13, 16 and 18 are newly amended.

Claims 32-34 are newly submitted.

5 This application contains claims 8 and 16 drawn to an invention nonelected with
traverse in Paper No. 12. A complete reply to the final rejection must include cancelation of
nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claims 8 and 16 are withdrawn as drawn to non-elected inventions.

10 Claims 1, 2, 12, 13, 17-21, 23, 30 and 31-34 are drawn to the elected invention and
are examined in the instant office action.

The text of those sections of Title 35, U.S. Code not included in this action can be
found in a prior Office action.

15 Claims 12, 19 and 32-34, and claims 13, 17-21, 23, 30 and 32-34 dependent thereon,
are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to
particularly point out and distinctly claim the subject matter which applicant regards as the
invention.

Claim 12 is indefinite in that it does not specify the order of the nucleic acid coding
sequence, the promoter and the termination region.

20 Claim 19 is indefinite in the recitation of "oleaginous", since this can be defined either
as relating to olive trees or as relating to oil, and it is unclear which is intended. Furthermore,

if the second definition is intended, then it is unclear how it would further limit the claim, since all plant cells make oil in some form, as stated in the last office action.

Claims 32-34 are indefinite in the recitation of promoter region, because it is unclear if this means all or part of the sequence that functions to promote transcription.

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Applicant's arguments filed May 5, 2003 have been fully considered but they are not persuasive. With regard to the use of "oleaginous", applicants assert that it is clearly defined at page 5, lines 12-15, and that this term was well known in the art to refer to cells that accumulate large amounts of lipid. The Examiner maintains that applicants definition in the specification is open-ended and therefore does not specifically define the intended group of plants. In addition, dictionaries refer to "oleaginous" as relating to oil, but not limited to the accumulation of large amounts of lipid in a plant cell. The term does not clearly set forth what plant species would be encompassed in the claimed genus.

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Claims 1, 2, 12, 13, 17-21, 23, 30 and 31-34 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention, as stated in the last office action. In addition, the specification fails to adequately describe the genus of methyl transferase genes, wherein different types of methyl transferases are used in a wide variety of cellular processes, and the specification only describes two, at pages 7 and 8.

20

Applicant's arguments filed May 5, 2003 have been fully considered but they are not persuasive. Applicants argue that the rejection should be withdrawn given the amendment of the claims to recite that the nucleic acid encodes a methyl transferase and the specification discloses two methyltransferase genes. The Examiner maintains that a description of two
5 methyltransferases does not adequately describe the entire genus that is claimed.

Claims 1, 2, 12, 13, 17-21, 23, 30 and 31-34 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly
10 connected, to make and/or use the invention for the reasons set forth in the scope of enablement rejection in the last office action, wherein the specification, while being enabling for transforming tobacco with a cyclopropane fatty acid synthase gene to produce branched fatty acids in a plant, does not reasonably provide enablement for the production of branched fatty acids in any plant with any gene that encodes an enzyme that will transfer one or more
15 alkyl groups to the double bond of an unsaturated fatty acid. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims, as stated in the last office action.

In addition, the claims are now limited to use of a methyl transferase gene, yet the
20 specification does not enable the use of a methyl transferase gene and furthermore does not enable the use of any or all methyltransferases in the claimed method. There are many

different methyl transferase genes that are required for a wide variety of different cellular processes. Yet, the specification does not provide an example for use of any of these to produce a branched fatty acid, nor does the specification provide guidance with regard to choosing among the many methyltransferases to identify any that would act in this manner
5 when transformed into a plant cell. Therefore, for the reasons already of record, it would require undue experimentation to make and/or use the claimed invention.

Applicant's arguments filed May 5, 2003 have been fully considered but they are not persuasive. Applicants assert that the rejection should be withdrawn. Applicants argue that
10 the claims have been amended to recite that the nucleic acid codes for a methyltransferase and states that the examples and figures show an example of a methyltransferase, and the specification describes making a construct and transforming a plant.

The Examiner maintains that the disclosure is only enabling for transforming tobacco with a cyclopropane fatty acid synthase gene to produce branched fatty acids in a plant, does
15 not reasonably provide enablement for the production of branched fatty acids in any plant with any gene that encodes an enzyme that will transfer one or more alkyl groups to the double bond of an unsaturated fatty acid. The teachings in the specification regarding methyltransferase genes are prophetic. Therefore, for the reasons stated in the last office action, it would require undue experimentation for one skilled in the art to make and/or use the
20 claimed invention.

Claims 12 13 17, 18 and 34 are rejected under 35 U.S.C. 102(e) as being anticipated by Fritig et al (U.S. Patent 5,959,178).

The claims are drawn to a recombinant nucleic acid comprising a nucleic acid coding for a methyltransferase, a plant expressible promoter and a termination region, and plant cells
5 and plants transformed therewith.

Fritig et al (U.S. Patent 5,959,178) teaches a recombinant nucleic acid comprising a nucleic acid coding for a methyltransferase, a plant expressible promoter and a termination region, including a CaMV 35S promoter, and plant cells and plants transformed therewith (see
10 columns 9-10).

15 No claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

20 A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth F. McElwain whose telephone number is (703) 308-1794. The examiner can normally be reached on Monday through Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson, can be reached at (703) 306-3218. The fax phone number for this Group is (703) 308-4242. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989).

Any inquiry of a general nature or relating to the status of this application should be directed to the legal analyst, Gwendolyn Payne, whose telephone number is (703) 305-2475, or to the Group receptionist whose telephone number is (703) 308-0196.

Elizabeth F. McElwain, Ph.D.
July 14, 2003


ELIZABETH F. McELWAIN
PRIMARY EXAMINER
GROUP 1800